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No 11

On Uterine Hemorrhage.

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Man, though dignified with the image of his Maker, and wisely placed at the head of creation, endued with reason and reflection, happy in many blessings; so far from being exempt from affliction and disease, is for some good reason and ends more subject to their attacks than the inferior animals.

Among the many diseases to which the human female is liable during the period of Utero Gestation, probably none is more alarming, or hazardous than that of Uterine Hemorrhage, I have therefore chosen it for the subject of my Inaugural Dissertation.

This complaint is more dangerous, as a general rule in proportion to the advancement of Pregnancy, as well as from the suddenness with which it takes place in the latter months, from causes to be hereafter mentioned. It not unfrequently baffles all the resources which nature and art enables us to call into requisition, and but too frequently a beloved wife, or a tender Mother is its victim. But I am happy to say, the improvements in science, the light of experience, and the diligent and unwearied exertions, of not a few of our own countrymen, have rendered these cases much less frequent, than

formerly. Uterine Hemorrhage, as the term implies, is strictly speaking, an immoderate discharge of blood, from the uterus occurring at different periods of life, either during Pregnancy, or in the empty state of the womb.

Uterine Hemorrhage, as I have stated, may take place at different periods of life, but in the present Essay, I shall confine my observations, to those attendant on pregnancy, and parturition. Agreeably to Herman, and some other of the more modern writers, I shall divide this complaint into four Periods.

1st. Of those which may occur, in early pregnancy.
2nd. Of those which may take place, in advanced pregnancy, or at the full period of utero gestation.
3d. Of those which may happen after the birth of the child, and before the expulsion of the placenta.
4th. Of those which follow the expulsion of the placenta.

The causes of Uterine Hemorrhage are various; and for the sake of perspicuity, I shall divide them into Predisposing and Exciting, the proximate being the actual separation, of the placenta itself, from the uterus.

Under the head of Predisposing causes, may be reckoned debility, arising from fever, meager diet, or any other cause, affecting the general system, or impairing the tone of the uterus. A deficiency of vis vitæ; an irritable constitution, producing a contraction, of the uterine fibre; Tumours, in the uterus, preventing the parts yielding; a constipated state of bowels, causing the rectum to press against the side of the uterus; A too large quantity, of the liquor amnii; and a plethoric diathesis. But above all an unnatural attachment, of the Placenta over the os uteri.

Under the head, of Exciting causes, may be enumerated any violent emotion, of the mind. as frights, anger joy &c. the uterus, being very much under the influence, of the mental functions. But the more frequent causes, are blows, falls, jolts, lifting of heavy weights, dancing, running, long and fatiguing walks, or any thing, causing a preternatural determination, of blood to the uterus, and thus producing a detachment of a part, or whole, of the placenta!

Falls, are said to be and, may be considered, as very frequent

causes of Abortion, as all the muscles, in the act of falling, are thrown more or less, into violent action.

By Abortion, I mean an expulsion of the foetus, at any time within the first six months, of Pregnancy; if it happen after the end, of the sixth month or within the last three months of utero gestation, it is denominated a premature labour, or a premature birth.

There is a practical reason, for this distinction, says the experienced Dr. Denman. "For before the termination of the sixth month, these cases generally speaking, neither require, nor even admit, of manual assistance. But in the last three months, they allow of manual assistance, if it be required, though not with equal ease, for the longer the time, that is wanting to complete the period of utero gestation, the greater the difficulty will be, which attends any operation, that it may be necessary to perform." To which may be added, we believe there is a possibility of a child's living, and doing well born within this term, but before the period of six months it cannot possibly long survive.

Abortions, may occur at any period, from the end of the sixth week, up to the expiration of the sixth month. They are said to be more frequent, at the end of the sixth, eighth, or tenth, week of pregnancy. Burns thinks they are more apt, to take place about the time of quickening, at the end of the third, or commencement of the fourth, month.

Uterine Hemorrhage, is generally more profuse, and dangerous in the latter months of pregnancy; though sometimes it is very alarming, and even dangerous, when it occurs even at an earlier period. This fact was noticed, by Doct De Rees who says, he has seen it take place, to as dangerous an extent, as at a more advanced period; this shows the vast importance, of attending to early hemorrhages, and to ascertain their causes, as a woman's life is ever in danger, from the time an hemorrhage, may come on, untie it is relieved, particularly if it arise, from the placenta being situated, over the os uteri.

It may be attended, either with or without pain, it is said to be more dangerous, when unattended with pain, as it manifests an atonic condition, of the uterine fibre. But if pain be present, it is an evidence of the contractile

powers of the uterus being more or less perfect, and Nature by her salutary efforts, to which we owe much for our success in practice, is by this means endeavouring, to suppress the discharge, either by a constriction of the mouths of the bleeding vessels, or by the formation of a coagulum.

This, if the hemorrhage proceeds from small vessels, the uterus is thrown into action, and contracts upon them. But if on the contrary it flow from the larger vessels, a clot is formed, impeding its further progress. Hence the importance, of attending to the rule of not making an examination per vaginam after a coagulum, may have formed, or when the blood shows a disposition to coagulate.

Although we are much indebted to nature, for her aid, in the cure of diseases, yet under certain circumstances we are not to lose sight of art, as an auxiliary. For example in the case before us, where the placenta is situated over the os uteri, were we to trust alone to the powers of nature to effect delivery; our anticipations of success would result but in the untimely death of our patient.

The symptoms of uterine hemorrhage are often at first

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very slight. and by the patient, and her friends, thought of a trivial nature. But by the attending Physician, they should be considered of the greatest moment, and always strictly attended to. Thus if it arise from this dangerous cause, the woman should obtain the most timely aid, as many women have died, from the Physician not having reached them sufficiently soon, to remove the obvious cause of death. The flooding is sometimes so copious, as to produce death, in the course of fifteen or twenty minutes from its onset.

The symptoms indicative of danger, are an absence of pain. attended with fits of shivering &c. pulse low, sharp, and alternating, sometimes imparting a sensation like that experienced by touching the string of an harpsichord. The countenance greatly changed, becoming pallid, and of a ghastly aspect. Much restlessness, and inquietude, and sometimes vomiting. At this period the hemorrhage, may probably cease for a while. and recur with increased violence, when the vomiting shall have intermitted. To these succeed

laborious respiration, deep and mournful sighing, till death finally puts a close, to the agonizing scene.

As relates to the diagnosis of hemorrhage, proceeding from a separation, of the placenta, whether attached to the os uteri, or adhering to some other part. little can be ascertained without making examination per vaginam, or technically speaking performing the operation of Touching. However, there is one sign, which should be attended to, denoting the situation of the placenta, at the os uteri. viz that of the hemorrhage being increased during a pain, and diminished, when the pain goes off; whereas directly the reverse happens from a partial, or entire detachment of it, from some other part of that viscus.

We have said, that the symptoms of uterine Hemorrhage may be slight at first; there may be a feeling of fulness, and a moderate degree of pain, in the back and loins extending over the abdomen; A small discharge of blood, may follow called a show. This moderate degree of discharge, is never attended with danger;

but from this time forward, we should keep the most watchful eye over our patient, especially if it be in the latter months of pregnancy.

Fainting, is no unusual symptom, in Uterine Hemorrhage, but does not always arise from the quantum of blood lost, as it sometimes depends, upon the suddenness, with which it is discharged. Thus a person under some circumstances, may loose double the quantity of blood, if slowly detracted, as would at other times, if quickly drawn, and from a large orifice, produce faintness. On this principle we believe syncope, from flooding is frequently occasioned.

Faintness, is not attended with danger, if the quantity of blood lost, is inconsiderable, as when it does occur a cessation of the hemorrhage, is usually effected.

This is one of the wise provisions of nature, to promote the formation of a coagulum, which may be considered as salutary, in its operation, if the system is not so much debilitated, from the previous loss of blood as to render it too feeble, for reaction.

Hemorrhages arising from an attachment of the placenta, over the os uteri are always attended, with more or less danger to the patient, and consequently demands, the earliest attention of the accoucheur.

This situation of the Placenta, is of a modern discovery Levret in the year 1776, first proved its original attachment to this part of the uterus. But Mr. Rigby is the first, who speaks of its practical importance, in a work on Uterine Hemorrhage, and published about the time, Levrets Essay first made its appearance.*

The fact, of the placenta being occasionally found at the os uteri, was noticed long anterior, to the time of Levret, as may be seen in the writings, of Ellaurieau, Lacellotte, Portal, Runsch, Giffard, Smellie, and Hunter, not to mention many others, of equal celebrity. But was considered by them, to have been originally situated, in the usual place, viz at or near the fundus uteri, and by some means detached, and by the laws of gravitation, or by the force of natural pains, thrown down on the os uteri.

* vide Rigby on Uterine Hemorrhage —

Smellie suggests the possibility, of its being originally attached, to this part, though he does not actually state the fact.* But for Levret, and Rigbee, it remained, to make this interesting discovery, in the healing art, and institute, the only mode of treatment, found to be completely effectual, in rescuing the patient from death.

Hemorrhages, arising from this cause, are of more frequent occurrence, than an inexperienced practitioner, might imagine. In the invaluable Essay of Rigbee, we find one hundred and six cases, of well defined Uterine Hemorrhages; forty three of which, he states were produced, from a separation of the placenta, when situated over the os uteri. and which in all probability, would have terminated fatally, had not proper means been resorted to. The remaining sixty three cases, were occasioned by a detachment, of the placenta, from some other part of the uterus.

This shows the great necessity, in every instance of Uterine Hemorrhage, of ascertaining the cause, by which it may be produced. ——

* vide his first vol. Midwifery.

Hemorrhages from the uterus. Rigbee divides into accidental, and unavoidable. thus when the placenta is situated over the os uteri, an hemorrhage must necessarily take place. This he considers as an unavoidable hemorrhage, and when the placenta adheres to some other part of the uterus, and a separation takes place from the common causes, as blows, falls &c, he calls them accidental. These distinctions are of practical utility, as they aid us in defining the disease, we shall therefore adopt them in our present essay.

Flooding, which proceeds from a separation of the placenta when attached to the os uteri seldoms happens before the sixth month; sometimes not untie the seventh or eighth month, at this time the os uteri may be considered as beginning to expand, for the approach of labour. This may be restrained for a while, but will recur, every two or three weeks, untie parturition takes place, or it may not occur untie the full period of utero gestation, whereas on the contrary, the accidental hemorrhage, may come on at any time

from the sixth week, up to the sixth, or the ninth months, differing in this respect, from the unavoidable.

The placenta being situated, so as to produce an unavoidable Hemorrhage, can only be ascertained by touching. It may upon examination, be mistaken for the membranes, or a coagulum of blood. From the former it may be distinguished, by its thickness and having a doughy, spongy inelastic, feel; the membranes being thinner, and having a feel peculiar to themselves, and which cannot well be mistaken, when once experienced. And from a coagulum of blood, it may be readily distinguished, by its being more irregular on its surface, and resisting the pressure of the finger, more forcibly; the coagulum besides is easily broken down, by the extremity of the finger.

After thus having given, a general history of the causes, of the progress &c, of uterine hemorrhage, as it may occur, in early or advanced pregnancy. I next proceed, to mention the most approved

plan of treatment.

It is obvious, that manual aid is improper, and even impracticable, during the first six months, the mouth of the uterus, not being at this time, sufficiently dilated to admit the introduction of the hand, without doing violence, to the soft parts; hence necessity calls loudly, for such remedies, as seem best calculated, to restrain hemorrhages. Thus if it arise from plethora, and the pulse be full and strong, I need scarcely say we should not hesitate, to detract blood from the arm; placing our patient in a horizontal position, in a cool and well ventilated apartment, enjoining the most perfect rest and tranquility; and confining her to a strict anti-phlogistic regimen. The acetate of lead, may be given in doses of two or three grains, either alone or combined with Ipecacuanha, and opium, and repeated every half hour or hour, or more seldom, according to the emergency of the case, if much pain exist, a larger quantity of opium may be added, than if none attend. The saline draught may be administered,

and if the pulse be active, the Digitalis must be given for a few days; cold applications, are to be made to the abdomen, and vulva if circumstances require them.

But when the hemorrhage amounts to a flooding, the practice must be prompt, and effectual.

It is seldom or never necessary, to bleed, though the pulse may at first seem to indicate its utility but it soon sinks, and may be considered as a gaseous pulse, and improper to deplete upon.

The patient as before directed, should be placed in a horizontal posture, on a matress in a room where the windows, and doors are opened, so as to admit a free circulation of air. The fire if any in the room, should be extinguished; And the bed clothing as light, and as few as decency will admit. She should not be allowed to speak, or be spoken to, as any, and every exertion, of this kind will increase the discharge, of the vital fluid.

Few persons should be permitted, to remain in the room.

The acetate of lead must be given with opium, in the proportion, of two, or three grains of the former, combined

with half a grain of the latter, and repeated every half hour, or hour, according to the exigency of the case. Doct. Chapman, thinks this quantity of the sugar of Lead infinitely too small, and says no good whatever will result in copious floodings, unless the dose administered be five or six grains and repeated at short intervals. Observing he has given it to the amount of thirty, forty, and even fifty grains before he could suppress the discharge, and never in one instance did any unpleasant consequences result; the only striking effects were a stoppage of hemorrhage, and some little irritation of the bowels, such as is occasionally induced by the more acid and stimulating purges. and states the more he uses the remedy, the more is he persuaded that the old notions, with regard to its very poisonous nature, are erroneous.

The Ipecacuanha, has been highly recommended in the cure of uterine Hemorrhage, and is a valuable article of the Materia Medica; but it should be given only in small doses, so as merely

to excite some degree of Nausea, say one or two grns. combined with half a grain of opium, administered pro re nata.

The sulphate of copper, is very favourably spoken of and recommended by Dr Fisher, in this disease, It is prepared in the following manner, for exhibition.

℞: Sulph copper ʒj
Bark of cascarilla ℥ij
Proof spirit - ℔j
M. f. digest and filter,

The dose in acute cases, is forty drops every hours in Chronic affections, it is given less frequently, say three or four times per diem. This preparation may be had recourse to, if the sugar of lead should prove ineffectual, to which I should in ordinary cases give the preference, its efficacy in uterine hemorrhage being confirmed, by very repeated experience.

Almost the whole of the articles of the class of astringents, have been tried in uterine hemorrhage, many

many have been rejected, and but few are now retained in common practice. Alum, kino, and catechu, each of which have had a reputation, but have now given way to the more efficient remedies, of the sugar of lead, opium and ipecacuanha. The alum may be given in the dose of eight, or ten grains, either alone, or combined with kino, and catechu.

The mineral acids, have not been overlooked, in the cure of hemorrhage, but are only adapted to restrain moderate discharges. the best of them is the sulphuric, in the form of Elixir vitriol, the dose is from thirty to forty drops, given every hour or two, according to circumstances.

As might be supposed, not a little has been said of the great powers of digitalis, in restraining hemorrhages, but to which it is improperly adapted. It may be given in chronic cases, after arterial action has been subdued, and when the bleeding, is not very copious in the dose from half a grain to two grains. co-operating with such internal remedies, as the

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acetate of lead, and opium. cold applications of water, vinegar, and water, or water made intensely cold, with the muriate of soda, should be made to the region of the uterus, either in the form of aspersion, or ablution, or what will be found still better, is to pour it upon the abdomen, from a height as from the spout of a common Tea-kettle, or any other appropriate vessel. Pounded Ice has been recommended, to be thrust up the vagina, or a lump allowed to melt in the mouth.

But these means are often inefficient, to restrain copious floodings; hence as a dernier resort, in cases of this kind when the os uteri, is not sufficiently dilated, or in a dilatable condition, so as to admit of artificial delivery; we make use of the flaxen plugs, called by the French Tampon, so highly recommended, and found so completely efficacious in the practice, of Doct. De Mees of this city.)

They are made by folding up clean flax, into a number of little pads, which being previously counted, are then lubricated with somolard, or

other unctuous matter, and carefully introduced, into the vagina, so as to fill it completely up, and there confined by an appropriate, counter bandage. They are allowed to remain under the hemorrhage shall have ceased or until the os uteri is dilated, so as to enable us to turn, and deliver by the feet, when they are all cautiously to be removed, taking care, not to leave any in the vagina. This practice can only be resorted to, before delivery for reasons too obvious, to mention. Injections per anum, have been attended with happy results in uterine hemorrhage; many of the astringents, have been recommended, but few are now made use of; the best is the acetate of lead, combined with laudanum in the following proportion agreeably to the direction of Dr. De Rees.

℞: Acetate of lead ʒj
Laudanum . . ℥j
Water . . . . ℥iv
M. f. be.

As relates to the management, of flooding, that may occur within the last three months of pregnancy, from whatever cause, we are directed to rupture the membranes or turn, under every

alarming circumstance, especially where procrastination would be attended, with danger. But this must only be resorted to, where the os uteri, is sufficiently dilated, or in a dilatable state, so as to allow the introduction of the hand without doing great violence, to the uterus, the woman must be properly placed, for this operation, and the hand lubricated with lard, to be carefully introduced, to rupture the membranes with the nail of the fore finger, in the most depending situation. evacuate the waters, and thus allow the uterus, to contract upon the child, and then suffer nature, to complete the delivery. This the experience accoucheurs Rigbee, says will be accomplished, in every instance where the placenta, is not originally situated, at the os uteri.

But when it is attached to the os uteri, a very different mode of practice, must be adopted; and is absolutely requisite. Mauriceau. and La Motte direct, that the placenta in these cases, should be brought away, before the expulsion of the child, unless danger arises from its adhesion to the membranes, or uterus. But this should never be done,

were we to extract, the placenta, before the delivery of the child, the probability is, we should even under the most favourable circumstances, endanger its life, as well as that of the mother, and therefore should never be attempted.

Dr. Denman regrets, that there is no precise time fixed, nor any rule upon which we can depend, as the most proper, for turning the child, and delivering by art, in cases of dangerous floodings.

I believe however, there is a rule by which we may be governed, in most cases, and that is when the flooding has proceeded so far, as to endanger life, we shall almost always find the uterus, sufficiently dilated, or disposed to be so; so that we may proceed to turning. But, if on the contrary, the os uteri be rigid, and undilated, and if upon the introduction of the finger, it contracts upon it, It will then be improper, and even dangerous to attempt turning, and we must therefore desist, from the operation, and wait until it becomes more relaxed.

At this period, if the flooding continue, and the os uteri does not give way, nothing will be found more effectual

in restraining the hemorrhage, than plugging up the vagina, as heretofore recommended; and this should always be resorted to, when the flooding threatens imminent danger, and the parts not sufficiently dilated, or relaxed so as to admit of turning. But when turning is thought expedient, after having placed our patient in the proper situation, and the hand lubricated with lard, as before directed, we should slowly and cautiously, insinuate it between the placenta, and the side of the uterus, at that place where there appears, to be the least resistance, carrying it high up, near the fundus uteri; the membranes are then to be ruptured, and the feet of the child embraced, so that the fore finger of the hand, be kept between them; and they are then to be brought down. Both feet should be brought down, at the same time if possible, and care should be taken, that a hand and foot are not made to descend, instead of the feet. The feet are to be brought through the passage, made by the hand between the side of the uterus, and placenta, and in this way the child, is to be delivered, observing to bring the occiput out, under

the arch of the pubis. great care and firmness, should be observed on the part of the accoucheur, during the whole process of the operation.

Some have recommended, to carry the hand directly through the placenta, and thus delivery the child through this passage. Dr Gunnes thinks under certain circumstances, this is the better mode of proceeding, as when the placenta firmly adheres, to the uterus, and the centre of it is directly over its mouth. But as a general rule, recommends passing the hand, between the side of the uterus, and the placenta, and deliver, as heretofore directed.

There are some advantages, attendant on introducing the hand, between the uterus, and placenta, which it may not be amiss to mention. viz by this means we more readily, prevent the too sudden evacuation, of the waters, and consequently render turning more easy; and the child's life will not be so likely, to be endangered by the rupture of the umbilical vessels, as would perhaps be the case, were the hand passed, directly through the middle of the placenta. And we believe there will be

more difficulty, in bringing the child, through a hole made in the placenta, than between the placenta and the uterus. These advantages, over those of passing the hand through the placenta, may be of some practical importance, and therefore I should recommend, passing the hand between the side of the uterus, and the placenta. However theory must suffice, for the present, and experience teach me the better mode of management.

Flooding, (as we have stated in the early part of this Essay) may come on at different periods, of Utero Gestation, or not until the full period. If it come on after labour has commenced, the head remaining high up, and the woman having suffered much from the discharge, it will be right to rupture the membranes, if not ruptured by the natural pains of labour, to turn the child and deliver by the feet.

But when we find the head of the child, low down in the pelvis, and where the waters, have been long evacuated, labour pains weak; and the hemorrhage copious, we are under these circumstances, to deliver with the forceps.

And if after the head is brought down by this means, the hemorrhage ceasing, and labour pains appearing, efficient it will be proper, to allow the body to remain in the uterus, to be expelled by its natural contracting.

But if the head of the child, be impacted in the superior strait; and cannot be delivered, by nature or by the Forceps, and the flooding continues, jeopardizing the life of the patient. what is to be done in this mournful dilemma! we are directed to make use of the crotchet, and thus destroy the life of the poor child, in order to save that of the mother. But heaven grant! it may never be my misfortune, to be under the painful necessity of resorting to this horrible practice, or of witnessing a scene so awful.

A threatening hemorrhage, not unfrequently follows the birth of the child, and before the placenta is expelled. If this threaten the life of our patient, the indication, is obvious. viz that of exciting the uterus to contraction; this end is often accomplished, by frictions on the abdomen, or by the introduction of the

hand, to bring away the placenta; but if after having introduced the hand, and gently separated the placenta, the blood still continuing, to be poured out in large quantities, and the tonic power of the uterus, not sufficient to cause it to contract, upon the ruptured vessels, we may with impunity, rub our fingers against the side of the uterus. This will often succeed in exciting a contraction of its fibres, and thus co-operating with the same end, the abdomen may be rubbed, with the hand.

Doct. Dr Ware says he has often prevented, a flooding when it was expected to take place after delivery, by giving a pill composed of three grains, of the sugar of lead, combined with one of opium, a short time before the delivery was accomplished.

Women in every instance, after parturition should be strictly confined, to a horizontal posture, and not allowed to be raised up or moved, for several hours. At the time the placenta comes away, which is generally in the course of from fifteen, to twenty

minutes after the delivery of the child, there may supervene a large discharge, of blood which had previously collected, in the uterus. this seldom produces any very unpleasant consequences.

At other times the hemorrhage, may continue and amount to a flooding, causing syncope, and sometimes even death. This discharge is called, by some Menorrhagia Lochialis. and is often produced, by the placenta being brought away, too suddenly, after the birth of the child. It may be treated, in the usual way as in other hemorrhages. by perfect rest. the acetate of Lead, and opium, by cold applications, to the abdomen, loins, and vagina. and by astringent injections. The room should be kept perfectly cool. Tonics may be given, as the sulphuric acid &c. The bowels must be kept open by some of the saline purges, and if the pulse be frequent. the digitalis, may be administered for a short time, with advantage.

If the pain in the back, be severe which is sometimes the case. a warm plaster, may be applied.

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In more moderate affections, when the pain is not so severe it may be allayed by the free application of vinegar, or salt and water. If the pulse be soft, and pain continue, an anodyne may be safely had recourse to, as doing away irritation, and rendering the patient more comfortable.

I have thus given an imperfect summary of uterine Hemorrhage, as occurring during pregnancy, or as an attendant on parturition. I have been probably too prolix on some points; while on others I may be accused of too much brevity, but the narrow limits of an Inaugural Dissertation will not allow me to enter more fully into Practice My youth, and inexperience must therefore suffice, as an ample apology.

But in closing this Essay, I should do violence to my feelings, were I not to express both gratitude and respect, to the Professors of this university, for their indefatigable exertions to diffuse Truth, and impart knowledge. I therefore beg them to accept, my most cordial and sincere thanks, for the many favors conferred on me, while an attendant on their lectures, and

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for the ample opportunities afforded me for instruction, wishing them uninterrupted health, and sincerely hoping that they may long continue as the eminent cultivators of science, by retaining those situations which reflect not less honor on their country, than they do credit to themselves, and may the Institution over which they preside continue to flourish, and become the proudest leaf in the chaplet of our national glory.